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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,779	01/23/2002	Atsushi Kawasumi	005405.00004	7218

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EXAMINER

CUNNINGHAM, TERRY D

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,779

Applicant(s)

KAWASUMI, ATSUSHI

Examiner

Terry D. Cunningham

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,9-15,17,19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2,9-11,17,19 and 21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/449,382.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of Species I, claims 2, 9-11, 17, 19 and 21, in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-11, 17, 19 and 21 are rejected under 35 U.S.C. § 112, first paragraph, as based on a disclosure which is not enabling. A claimed means or element corresponding the current source 115 is deemed critical or essential to the practice of the invention, but is not included in the claim(s). In claims 17, 19 and 21, a claimed means or element corresponding the "compensation circuit" 114 is deemed critical or essential to the practice of the invention, but is not included in the claim(s). In claim 19, a claimed means or element corresponding to input transistor, e.g., 112, is deemed critical or essential to the practice of the invention, but is not included in the claim(s). In claim 21, a claimed means or element corresponding to input transistors, e.g., 111 and 112, is deemed critical or essential to the practice of the invention, but is not included in the claim(s). An arrangement lacking these features is not enabled by the disclosure since it cannot be understood from the specification how the circuit will operate without such. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 9-11, 17, 19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, there is no connection recited for the “drain” and “source” of each the “first MOS transistor” and the “second MOS transistor”, thus it is not understood how such can operate. Also, there is no connection recited between the “compensation circuit” and the remainder of the circuit, thus it is not understood how such can provide any operation. In lines 6, it is not understood nor has it been recited as to where the “mirror circuit” is in the circuit or even if such is in the circuit. In lines 6-7, the phrase “a drain-source voltage dependence of the mirror current” is not understood. Firstly, since it is not understood as to what this “mirror current” is referring to, it is not understood how the language can have relevance. Secondly, it is not understood how a “mirror current” can have a “drain-source voltage dependence”. And thirdly, it is not understood nor has it been recited as to where this “drain-source voltage” is in the circuit.

In claim 9, there is no connection recited for the “drain” of each the “first MOS transistor” and the “second MOS transistor”, thus it is not understood how such can operate. In line 9, the phrase “wherein voltage” is not clear. It appears that this should recited --wherein a voltage--. Also, in line 9, there is no antecedent for “the voltage V_{g1} ”. It appears that “the” should be changed to --a--. Also, it is not understood how the circuit can have the recited operation since nowhere has the claim recited a means or element to provide the voltage “which is applied to the gates of the first and the second PMOS transistors”.

Claims 10 and 11 are rejected for the reasons discussed above with claim 9.

In claim 17, similarly as discussed above, there are insufficient connections recited for the transistors in the “first”, “second” and “third” groups for the circuit to operate. It is well known to one skilled in the art that connection is required for all three terminals of a transistor for such to operate. In lines 11-17, it is not understood how the “difference voltages” can be applied when there has been no means or elements recited to determine these “difference voltages”.

In claim 19, similarly as above, connection for all the terminals of all the transistors is required for the circuit to operation. In line 3, the phrase “at least one” is deemed misdescriptive because such allows for more than one, for which there is no support. In line 6, the phrase “compensation PMOS transistor” is not consistent with its antecedent. It appears that “transistor” should be changed to --transistor--. In lines 8-9, it is not understood how the circuit can have the recited operation since nowhere has the claim recited a means or element to provide the “voltages” which are “applied to the gate-source voltage of each compensation transistor”. Also, it is not understood how “voltages” can be applied to “gate-source voltages” (emphasis added). A voltage cannot be applied to a voltage. It appear that “gate-source voltage” should be changed to --gate-source region--.

Claim 21 is rejected for similar reasons as claim 17.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public

use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 9-11 and 19, insofar as understood, are rejected under 35 U.S.C. §102(b) as being anticipated by Guliani (USPN 5,109,187). Guliani discloses, in Fig. 2, a circuit comprising: “

a first PMOS transistor (42)”; “a second PMOS transistor (32 or 44)”; and “a compensation circuit (remainder of circuit)” having “at least one compensation PMOS transistor (16)”, all connected and operating similarly as recited by Applicant.

With respect to claims 17 and 21, due to the present non-enablement and indefiniteness therein, allowable subject matter cannot be determined.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for Technology Center 2800 are 703-872-9318 for Before Final communications and 703-872-9319 for After Final communications. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

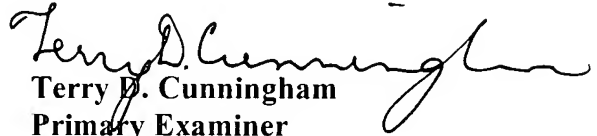
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC
May 4, 2002


Terry D. Cunningham
Primary Examiner
Art Unit 2816